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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,189	09/17/2003	Jonathan Richard Thorpe	282560US8X	3961

22850   7590   04/20/2011
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER
DWIVEDI, MAHESH H

ART UNIT	PAPER NUMBER
2168	

NOTIFICATION DATE	DELIVERY MODE
04/20/2011	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

	Application No.	Applicant(s)
Office Action Summary	10/664,189	THORPE, JONATHAN RICHARD
	Examiner	Art Unit
	MAHESH DWIVEDI	2168

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>16 February 2011</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-23 and 27-32</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-23 and 27-32</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>09 February 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Priority

1.   Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Response to Amendment

2.   Receipt of Applicant's Amendment filed on 01/18/2011 and supplemental amendment filed on 02/16/2011 is acknowledged. The amendment filed on 01/18/2011 includes the amending of claims 1, 12, 16-17, 20-23, the cancellation of claims 24-26, and the addition of claim 31. The supplemental amendment filed on 02/16/2011 includes the amending of claims 1, 16-17, 20-22, and 31, the cancellation of claims 24-26, and the addition of claim 32.

Remarks

3.   The examiner notes that the instant application claims priority to foreign application 0221774.3 from the UK with a priority date of 09/19/2002. The examiner further notes that he could not find the subject matter regarding the register (for determining whether an information item has been previously sent, and if not, sending such an information item to a user) in the aforementioned foreign UK application. The newly cited art of **Weinmann** (with an effective filing date of 12/02/2002), is therefore applicable to the subject matter regarding the register for determining whether an information item has been previously sent to a user.

Claim Rejections - 35 USC § 101

4.   The rejections raised in the office action mailed on 10/15/2010 have been overcome by applicant's amendments received on 01/18/2011.

Specification

5.   The objections raised in the office action mailed on 10/15/2010 have been overcome by applicant's amendments received on 01/18/2011.

Claim Rejections - 35 USC § 112

6.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7.   Claim 32 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite
for failing to particularly point out and distinctly claim the subject matter which applicant
regards as the invention.

Specifically, the phrase "**substantially identical** information items" is indefinite
because it is subjective because there is no standard of measuring what is substantially
identical. Because there is no standard, there are no boundaries to discern what is
substantially identical, and thus, the aforementioned is indefinite.

Claim Rejections - 35 USC § 103

8.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all
obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner wherein the invention was made.

9.   Claims 1-23, and 27-32 are rejected under 35 U.S.C. 103(a) as being
unpatentable over **Fanning et al.** (U.S. Patent 6,742,023) in view of **Weinmann** (U.S.
Patent 7,096,464), and further in view of **Kohonen et al.** (Article entitled "Self
Organization of a Massive Document Collection", dated May 2000).

10.   Regarding claim 1, **Fanning** teaches a system comprising:

A) a data network (Column 5, lines 13-40);

B) an information retrieval client system connected to said data network (Column 5,
lines 13-40); and

C) a plurality of information item storage nodes connected to the data network (Column
5, lines 29-40);

D) wherein: each storage node comprises a store configured to store a plurality of
information items and an indexer (Column 5, lines 13-40, 42-59, Column 13, lines 6-24,
Figure 3);

E) the indexer configured to generate data including a text-based abstraction of an
information item, the data abstracting the information item, when stored, requiring less

storage capacity than a corresponding information item (Column 3, lines 8-12, 44-47, Column 13, lines 6-24);

F) the indexer further configured to send the data abstracting the information item to the client system via said data network (Column 5, lines 13-40, Column 13, lines 6-24);

The examiner notes that **Fanning** teaches **"a data network"** as "FIG. 1 also shows a network 22 interconnected between the distribution applications 10, 12. As can be seen in FIG. 1, all distribution applications 10, 12 have the same functionality. One user's file transfer client 14 can download files from another user's file transfer server 20, and vice versa" (Column 5, lines 23-29). The examiner further notes that **Fanning** teaches **"an information retrieval client system connected to said data network"** as "FIG. 1 also shows a network 22 interconnected between the distribution applications 10, 12. As can be seen in FIG. 1, all distribution applications 10, 12 have the same functionality. One user's file transfer client 14 can download files from another user's file transfer server 20, and vice versa" (Column 5, lines 23-29). The examiner further notes that **Fanning** teaches **"a plurality of information item storage nodes connected to the data network"** as "It should be understood in this description that although only two distribution applications 10, 12 communicating with each other are explicitly discussed, any number of distribution applications may be utilized in the system of the present invention. This is shown in FIG. 2 wherein a plurality of client servers, each denoted as C/S 12, are connected to one another in a system. As shown in FIG. 2, once a C/S 12 downloads a file from another C/S 12, it is able to distribute the file downloaded to other C/S 12 applications in the system. The particular components within system of the present invention will now be discussed" (Column 5, lines 29-40). The examiner further notes that **Fanning** teaches **"wherein: each storage node comprises a store configured to store a plurality of information items and an indexer"** as "FIG. 3 illustrates the system of the present invention having a first distribution application 100 and a second distribution application 212, a file index server 300, and a file index 302. Each distribution application 100, 212 preferably includes: a file transfer client 114, 214; a data file repository 116, 216; a graphical user interface 118, 218; a file transfer server 120, 220 and an inventory module 130, 230. Preferably,

the data file repository, or repository, 116 shown in FIG. 3 is where the all of the data files to be shared are stored. In the preferred embodiment, the data file repository 116 contains at least one directory on disk drives in a personal computer. In an alternative embodiment, the data file repository 116 may be a database. In another embodiment, the repository 116 may be a network accessible disk drive that the distribution application 100 can access. Alternatively, the repository 116 can also be a collection of directories enabling the user to organize files by type, classification, or attribute" (Column 5, lines 42-59) and "In an alternative embodiment shown in FIG. 9, the distribution application 1100 contains an audio file module 1102, which includes an audio file player 1106, as well as an audio file converter 1104. The audio file player 1106 plays files located in the data file repository 1116, while the audio file converter 1104 generates audio files either by sampling data from a microphone or tape, or by converting data stored on a CD-ROM or hard disk into a standard compressed audio file format. Converted audio files are placed in the repository 1116, allowing other users in the community to access these new audio files. In addition, the distribution application 1100 may also contain a video file module 1108, which includes a video file player 1111, as well as a video file converter 1110. Much as in the audio example above, video images (either still, or full motion) are converted from external sources to compressed standard formats and are placed in the repository 1116. Likewise, video files in the repository 1116 are displayed to the user by the video file player 1111" (Column 13, lines 6-24). The examiner further notes that **Fanning** teaches **"the indexer configured to generate data including a text-based abstraction of an information item, the data abstracting the information item, when stored, requiring less storage capacity than a corresponding information item"** as "The file description comprises any of the following: a title of the data file, the size of the data file, the type of data file, any text associated with the data file, the creator of the data file, the quality rating of the data file, and the distribution application where the data file resides" (Column 3, lines 8-12), "The data files are of the type selected from the group comprising: an audio data file, a text data file, an image data file, a video data file, a software executable data file, or a data file containing combinations, such as a multimedia data file" (Column 3, lines

44-47), "In an alternative embodiment shown in FIG. 9, the distribution application 1100

contains an audio file module 1102, which includes an audio file player 1106, as well as

an audio file converter 1104. The audio file player 1106 plays files located in the data

file repository 1116, while the audio file converter 1104 generates audio files either by

sampling data from a microphone or tape, or by converting data stored on a CD-ROM or

hard disk into a standard compressed audio file format. Converted audio files are placed

in the repository 1116, allowing other users in the community to access these new audio

files. In addition, the distribution application 1100 may also contain a video file module

1108, which includes a video file player 1111, as well as a video file converter 1110.

Much as in the audio example above, video images (either still, or full motion) are

converted from external sources to compressed standard formats and are placed in the

repository 1116. Likewise, video files in the repository 1116 are displayed to the user by

the video file player 1111" (Column 13, lines 6-24). The examiner further notes that

Fanning teaches **"the indexer further configured to send the data abstracting the**

information item to the client system via said data network" as "FIG. 1 also shows

a network 22 interconnected between the distribution applications 10, 12. As can be

seen in FIG. 1, all distribution applications 10, 12 have the same functionality. One

user's file transfer client 14 can download files from another user's file transfer server

20, and vice versa" (Column 5, lines 23-29) and "In an alternative embodiment shown in

FIG. 9, the distribution application 1100 contains an audio file module 1102, which

includes an audio file player 1106, as well as an audio file converter 1104. The audio file

player 1106 plays files located in the data file repository 1116, while the audio file

converter 1104 generates audio files either by sampling data from a microphone or

tape, or by converting data stored on a CD-ROM or hard disk into a standard

compressed audio file format. Converted audio files are placed in the repository 1116,

allowing other users in the community to access these new audio files. In addition, the

distribution application 1100 may also contain a video file module 1108, which includes

a video file player 1111, as well as a video file converter 1110. Much as in the audio

example above, video images (either still, or full motion) are converted from external

sources to compressed standard formats and are placed in the repository 1116.

Likewise, video files in the repository 1116 are displayed to the user by the video file player 1111" (Column 13, lines 6-24).

Fanning does not explicitly teach:

G) the indexer configured to maintain a register indicative of whether the data abstracting the information item has previously been transmitted to the client system;

H) to cause data abstracting information items which have not been previously transmitted to the client system to be forwarded to the client system; and

I) to update the register in accordance with the data abstracting information items which were forwarded to the client system.

Weinmann, however, teaches **"the indexer configured to maintain a register indicative of whether the data abstracting the information item has previously been transmitted to the client system"** as "The method may further include selecting the pertinent software update based on a criterion for determining the pertinence of the software update to the user, and the criterion may be determined by the user, or the criterion may be related to a determination of whether a pertinent software update has already been sent to the user" (Column 1, lines 54-59) and "The statistically determined list of pertinent updates 210 may be manually modified or updated by a person at the application provider and a final list of the most pertinent updates may be generated and grouped together in a common classification of pertinent updates 214. Manual updating of the statistically generated list of updates 210 may be necessary, for example, if a particularly critical update becomes available after the time period within which the statistical information about the pertinence of the available updates was generated, or if an update on the statistically generated list of updates 210 becomes obsolete or otherwise irrelevant to a user 200" (Column 4, lines 39-50), **"to cause data abstracting information items which have not been previously transmitted to the client system to be forwarded to the client system"** as "A method of automatically sending a pertinent software update to a user of an executable software application is disclosed. The method includes storing a plurality of software updates for the software application and ranking the pertinence of the individual software updates. At least one pertinent software update is selected from the plurality of software updates based on the ranking

of the pertinence of the software update and automatically sent to the user" (Abstract),
"The method may further include selecting the pertinent software update based on a
criterion for determining the pertinence of the software update to the user, and the
criterion may be determined by the user, or the criterion may be related to a
determination of whether a pertinent software update has already been sent to the user"
(Column 1, lines 54-59), and "The statistically determined list of pertinent updates 210
may be manually modified or updated by a person at the application provider and a final
list of the most pertinent updates may be generated and grouped together in a common
classification of pertinent updates 214. Manual updating of the statistically generated list
of updates 210 may be necessary, for example, if a particularly critical update becomes
available after the time period within which the statistical information about the
pertinence of the available updates was generated, or if an update on the statistically
generated list of updates 210 becomes obsolete or otherwise irrelevant to a user 200"
(Column 4, lines 39-50), and **"to update the register in accordance with the data
abstracting information items which were forwarded to the client system"** as "The
method may further include selecting the pertinent software update based on a criterion
for determining the pertinence of the software update to the user, and the criterion may
be determined by the user, or the criterion may be related to a determination of whether
a pertinent software update has already been sent to the user" (Column 1, lines 54-59)
and "The statistically determined list of pertinent updates 210 may be manually modified
or updated by a person at the application provider and a final list of the most pertinent
updates may be generated and grouped together in a common classification of pertinent
updates 214. Manual updating of the statistically generated list of updates 210 may be
necessary, for example, if a particularly critical update becomes available after the time
period within which the statistical information about the pertinence of the available
updates was generated, or if an update on the statistically generated list of updates 210
becomes obsolete or otherwise irrelevant to a user 200" (Column 4, lines 39-50).

It would have been obvious to one of ordinary skill in the art at the time the
invention was made to combine the teachings of the cited references because teaching
Weinmann's would have allowed **Fanning's** to provide a method that shuns the

reactive sending of updates to users in favor of an automated system for transmitted updates, as noted by **Weinmann** (Column 1, lines 16-20).

Fanning and **Weinmann** do not explicitly teach:

J) said client system includes a node position generating unit configured to generate a node position in respect of each information item represented by said received data responsive to the data abstracting the information item received from said indexer of a storage node, the node position generating unit configured to add a random dither component of up to ±1/2 the node separation to identical information items.

Kohonen, however, teaches **"said client system includes a node position generating unit configured to generate a node position in respect of each information item represented by said received data responsive to the data abstracting the information item received from said indexer of a storage node, the node position generating unit configured to add a random dither component of up to ±1/2 the node separation to identical information items"** as "With the newest versions of our programs the whole process of computation of the document map takes about six weeks on a six-processor SGI 02000 computer...The amount of main memory required was about 800 MB" (Page 582, Section C: Formation of the Document Map), "This time includes finding the keywords to label the map, forming the WWW-ages that are used in exploring the map, and indexing the map units for keyword searches" (Page 583, Section C: Formation of the Document Map), and "Given a search description, the matching units are found from the index and the best matches are returned and displayed as circles on the map" (Page 584, Section 2: Keyword Search).

The examiner further notes that the dither component limitation merely requires a value of _up to_ ±1/2. Because 0 is within the defined range, than the broadest reasonable interpretation of the aforementioned dither component is that no such random dither is applied. Thus, **Kohonen's** node generation teaches the aforementioned.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Kohonen 's** would have allowed **Fanning's** and **Weinmann's** to provide a method for

help a client understand the true meaning of individual texts and finding information of the highest interest, as noted by **Kohonen** (Section: Introduction).

Regarding claim 2, **Fanning** further teaches a system comprising:

A) wherein said indexer at each storage node is operable to transmit data to said client system to said client system in batches (Column 12, lines 53-67-Column 13, lines 1-5, Figure 8);

B) each batch comprising at least data derived from some of those information items stored at that storage node for which data has not previously been transmitted to said client system (Column 5, lines 60-64).

The examiner notes that **Fanning** teaches "**wherein said indexer at each storage node is operable to transmit data to said client system to said client system in batches**" as "Alternatively, as shown in FIG. 8, a parallel download module 1002 may be used to improve transfer rates of slow file transfer servers 1004, 1006. The parallel module 1002 would be connected to at least two file transfer servers 1004, 1006 in order to download a given data file. The file to be downloaded from each file transfer server 1004, 1006 must be identical. The parallel download module 1002 requests a different section of the given data file from each of the file transfer servers 1004, 1006 by using a file subsection download request. Thereafter, a completed download is reported when all sections have been successfully downloaded. This allows a high-bandwidth file transfer client 1000 to rapidly download parts of the same file from several lower bandwidth file transfer servers 1004, 1006" (Column 12, lines 53-67-Column 13, lines 1-5). The examiner further notes that **Fanning** teaches "**each batch comprising at least data derived from some of those information items stored at that storage node for which data has not previously been transmitted to said client system**" as "Files obtained from one distribution application 212 to another distribution application 100 are initially stored in the data file repository 116 immediately after being downloaded, making these newly downloaded data files available to other distribution applications (not shown)" (Column 5, lines 60-64).

Regarding claim 3, **Fanning** further teaches a system comprising:

A) wherein each batch of data comprises data derived from those information items stored at that storage node for which data has not previously been transmitted to said client system (Column 5, lines 60-64).

The examiner notes that **Fanning** teaches **"wherein each batch of data comprises data derived from those information items stored at that storage node for which data has not previously been transmitted to said client system"** as "Files obtained from one distribution application 212 to another distribution application 100 are initially stored in the data file repository 116 immediately after being downloaded, making these newly downloaded data files available to other distribution applications (not shown)" (Column 5, lines 60-64).

Regarding claim 4, **Fanning** further teaches a system comprising:

A) wherein said indexer at each storage node is operable to transmit to said client system a batch of data derived from information items stored at that storage node in response to an information retrieval operation at said client system (Column 12, lines 53-67-Column 13, lines 1-5, Figure 8).

The examiner notes that **Fanning** teaches **"wherein said indexer at each storage node is operable to transmit to said client system a batch of data derived from information items stored at that storage node in response to an information retrieval operation at said client system"** as "Alternatively, as shown in FIG. 8, a parallel download module 1002 may be used to improve transfer rates of slow file transfer servers 1004, 1006. The parallel module 1002 would be connected to at least two file transfer servers 1004, 1006 in order to download a given data file. The file to be downloaded from each file transfer server 1004, 1006 must be identical. The parallel download module 1002 requests a different section of the given data file from each of the file transfer servers 1004, 1006 by using a file subsection download request. Thereafter, a completed download is reported when all sections have been successfully downloaded. This allows a high-bandwidth file transfer client 1000 to rapidly download

parts of the same file from several lower bandwidth file transfer servers 1004, 1006"
(Column 12, lines 53-67-Column 13, lines 1-5).

Regarding claim 5, **Fanning** further teaches a system comprising:

A) wherein said indexer at each storage node is operable to detect an information item
which is modified or newly stored at that storage node (Column 6, lines 24-27); and

B) in response to such a detection, to send a batch of data derived from that information
item to said client system (Column 6, lines 28-32).

The examiner notes that **Fanning** teaches **"wherein said indexer at each
storage node is operable to detect an information item which is modified or newly
stored at that storage node"** as "the last modification time shows that the directory
has been modified recently, the inventory module 130 checks the contents of the
directory to ascertain which files if any have been added or removed" (Column 6, lines
24-27). The examiner notes that **Fanning** teaches **"in response to such a detection,
to send a batch of data derived from that information item to said client system"**
as "Where the repository 116 is a database, the inventory module 130 uses database
triggers to automatically monitor the repository 116 as well as receive file add and file
remove events from the database as files are added and removed " (Column 6, lines
28-32).

Regarding claim 6, **Fanning** further teaches a system comprising:

A) wherein said data network is an internet network (Column 2, lines 6-8).

The examiner notes that **Fanning** teaches **" wherein said data network is an
internet network"** as "Thus, it can be seen that there is a long-standing need on the
Internet for a system that facilitates the distribution of data files in a community of users"
(Column 2, lines 6-8).

Regarding claim 7, **Fanning** further teaches a system comprising:

A) wherein one or more of said storage nodes are internet search servers (Column 10,
lines 49-65).

The examiner notes that **Fanning** teaches **" wherein said data network is an internet network"** as "FIG. 6 shows the preferred embodiment, where the system of the present invention utilizes a search module 806 for searching the file index, in which a search request submitted by the distribution application 800 is processed and a search response, containing file descriptions matching the search request, is returned to that distribution application 800. When a user wishes to locate a particular data file, the search module 800 constructs a search request to the file index 810 based on the search criteria specified by the user through the distribution application 800. The search criteria can contain a complete filename or a subsection of the filename, limitations on any of the fields of ancillary data, the file size, or limitations on the file transfer server including bandwidth to network or percentage of successful downloads. The index server 808 executes the search request, prunes the file descriptions as appropriate, and displays the search response to the users" (Column 10, lines 49-65).

Regarding claim 8, **Fanning** further teaches a system comprising:
A) wherein said information items are at least partially textual (Column 10, lines 34-36); and
B) said data derived form a stored information item comprises the whole of said textual content of that information item (Column 10, lines 34-36).

The examiner notes that **Fanning** teaches "**wherein said information items are at least partially textual"** as " The index server also optionally stores information for each file description such as: filename; file data type (text, audio, images, video, etc)" (Column 10, lines 34-36). The examiner further notes that **Kohonen** teaches **"said data derived form a stored information item comprises the whole of said textual content of that information item"** as " The index server also optionally stores information for each file description such as: filename; file data type (text, audio, images, video, etc)" (Column 10, lines 34-36).

Regarding claim 9, **Fanning** further teaches a system comprising:
A) wherein said data derived from a stored information item comprises textual data

indicative of said content of the stored information item (Column 5, lines 66-67-Column 6, lines 1-8).

The examiner notes that **Fanning** teaches **"wherein said data derived from a stored information item comprises textual data indicative of said content of the stored information item"** as "A description of each file placed in the file repository 116 is automatically made available by an inventory module 130 in the distribution application 100 to other distribution applications 212 in the community. In the preferred embodiment, the inventory module 130 verifies that each file is a valid file of the types of files available for distribution. The inventory module 130 also extracts a title of the data file, the size of the data file, the type of data file, any text associated with the data file, the creator of the data file and the quality rating of the data file" (Column 5, lines 66-67-Column 6, lines 1-8).

Regarding claim 10, **Fanning** and **Weinmann** do not explicitly teach a system comprising:
A) wherein said client system comprises a graphical user interface for displaying a representation of at least some of said nodes as a two-dimensional display array of display points within a display area on. a user display.

Kohonen, however, teaches **"wherein said client system comprises a graphical user interface for displaying a representation of at least some of said nodes as a two-dimensional display array of display points within a display area on a user display"** as "documents are presented as points on a two- dimensional (2-D) plane and the geometric relations of the image points of the documents represent their similarity relations" (Page 574) and "Forming the user interface automatically took an additional week of computation. This time includes finding the keywords to label the map, forming the WWW-pages that are used in exploring the map, and indexing the map units for keyword searches" (Page 583).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Kohonen 's** would have allowed **Fanning's** and **Weinmann's** to provide a method for

help a client understand the true meaning of individual texts and finding information of the highest interest, as noted by **Kohonen** (Section: Introduction).

Regarding claim 11, **Fanning** and **Weinmann** do not explicitly teach a system comprising:

A) wherein said client system comprises: (i) a user control for defining a two-dimensional region of said display area; and

B) a detector for detecting those display points lying within said two-dimensional region of said display area.

Kohonen, however, teaches **"wherein said client system comprises: (i) a user control for defining a two-dimensional region of said display area"** as "Forming the user interface automatically took an additional week of computation. This time includes finding the keywords to label the map, forming the WWW-pages that are used in exploring the map, and indexing the map units for keyword searches" (Page 583) and "keyword search" (Page 584) and **"a detector for detecting those display points "lying within said two-dimensional region of said display area"** as "Forming the user interface automatically took an additional week of computation. This time includes finding the keywords to label the map, forming the WWW-pages that are used in exploring the map, and indexing the map units for keyword searches" (Page 583) and "An example of performing a keyword search is depicted in Fig. 6" (Page 584, Section: Keyword Search).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Kohonen 's** would have allowed **Fanning's** and **Weinmann's** to provide a method for help a client understand the true meaning of individual texts and finding information of the highest interest, as noted by **Kohonen** (Section: Introduction).

Regarding claim 12, **Fanning** and **Weinmann** do not explicitly teach a system comprising:

A) wherein said graphical user interface is operable to display a list of data

abstracting information items, being those information items mapped onto nodes corresponding to display points displayed within said two-dimensional region of said display area.

Kohonen, however, teaches "**wherein said graphical user interface is operable to display a list of data abstracting information items, being those information items mapped onto nodes corresponding to display points displayed within said two-dimensional region of said display area**" as "This time includes finding the keywords to label the map, forming the WWW-pages that are used in exploring the map, and indexing the map units for keyword searches" (Page 583, Section C: Formation of the Document Map) and "When clicking a point on the map display with a mouse, links to the document database enable reading the contents of the documents" (Page 583, Section E: Exploration of the Document Map). The examiner further notes that Figure 5 clearly shows an interface With nodes mapping different documents.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Kohonen 's** would have allowed **Fanning's** and **Weinmann's** to provide a method for help a client understand the true meaning of individual texts and finding information of the highest interest, as noted by **Kohonen** (Section: Introduction).

Regarding claim 13, **Fanning** and **Weinmann** do not explicitly teach a system comprising:
A) wherein said client system comprises a user control for choosing one or more information items from said list; and
B) said graphical user interface being operable to alter manner of display within said display area of display points corresponding to selected information items.

Kohonen, however, teaches "**wherein said client system comprises a user control for choosing one or more information items from said list**" as "Forming the user interface automatically took an additional week of computation. This time includes

finding the keywords to label the map, forming the WWW-pages that are used in exploring the map, and indexing the map units for keyword searches" (Page 583), "This time includes finding the keywords to label the map, forming the WWW- pages that are used in exploring the map, and indexing the map units for keyword searches" (Page 583, Section C: Formation of the Document Map), and "When clicking a point on the map display with a mouse, links to the document database enable reading the contents of the documents" (Page 583, Section E: Exploration of the Document Map) and **"said graphical user interface being operable to alter manner of display within said display area of display points corresponding to selected information items"** as "Forming the user interface automatically took an additional week of computation. This time includes finding the keywords to label the map, forming the WWW-pages that are used in exploring the map, and indexing the map units for keyword searches" (Page 583), "This time includes finding the keywords to label the map, forming the WWW-pages that are used in exploring the map, and indexing the map units for keyword searches" (Page 583, Section C: Formation of the Document Map), and "When clicking a point on the map display with a mouse, links to the document database enable reading the contents of the documents" (Page 583, Section E: Exploration of the Document Map). The examiner further notes that Figure 6 clearly shows the ability to alter the interface by zooming in (see "Click any area on the map to get a zoomed view!").

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Kohonen 's** would have allowed **Fanning's** and **Weinmann's** to provide a method for help a client understand the true meaning of individual texts and finding information of the highest interest, as noted by **Kohonen** (Section: Introduction).

Regarding claim 14, **Fanning** further teaches a system comprising:
A) wherein said data derived from an information item includes an identification of said storage location of that information item (Column 3, lines 8-12).

The examiner notes that **Fanning** teaches **"wherein said data derived from an information item includes an identification of said storage location of that information item"** as "The file description comprises any of the following: a title of the data file, the size of the data file, the type of data file, any text associated with the data file, the creator of the data file, the quality rating of the data file, and the distribution application where the data file resides" (Column 3, lines 8-12).

Regarding claim 15, **Fanning** and **Weinmann** do not explicitly teach a system comprising:

A) wherein said identification comprises a universal resource indicator (URI).

Kohonen teaches **"wherein said identification comprises a universal resource indicator (URI)"** as "This time includes finding the keywords to label the map, forming the WWW-pages that are used in exploring the map, and indexing the map units for keyword searches" (Page 583, Section C: Formation of the Document Map) and "When clicking a point on the map display with a mouse, links to the document database enable reading the contents of the documents" (Page 583, Section E: Exploration of the Document Map).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Kohonen 's** would have allowed **Fanning's** and **Weinmann's** to provide a method for help a client understand the true meaning of individual texts and finding information of the highest interest, as noted by **Kohonen** (Section: Introduction).

Regarding claim 16, **Fanning** teaches an information storage node comprising:
A) said storage node being connected via a data network to an information retrieval client system (Column 5, lines 13-40); and
C) the storage node comprising: a store configured to store a plurality of information items and an indexer (Column 5, lines 42-59, Column 13, lines 6-24, Figure 3);
E) the indexer configured to generate data including a text-based abstraction of an information item, the data abstracting the information item, when stored, requiring less

storage capacity than a corresponding information item (Column 3, lines 8-12, 44-47,

Column 13, lines 6-24);

F) the indexer further configured to send the data abstracting the information item to

the client system via said data network (Column 5, lines 13-40, Column 13, lines 6-24);

   The examiner notes that **Fanning** teaches **"said storage node being**

connected via a data network to an information retrieval client system" as "FIG. 1

also shows a network 22 interconnected between the distribution applications 10, 12.

As can be seen in FIG. 1, all distribution applications 10, 12 have the same functionality.

One user's file transfer client 14 can download files from another user's file transfer

server 20, and vice versa" (Column 5, lines 23-29). The examiner further notes that

Fanning teaches **"the storage node comprising: a store configured to store a**

plurality of information items and an indexer" as "FIG. 3 illustrates the system of the

present invention having a first distribution application 100 and a second distribution

application 212, a file index server 300, and a file index 302. Each distribution

application 100, 212 preferably includes: a file transfer client 114, 214; a data file

repository 116, 216; a graphical user interface 118, 218; a file transfer server 120, 220

and an inventory module 130, 230. Preferably, the data file repository, or repository, 116

shown in FIG. 3 is where the all of the data files to be shared are stored. In the

preferred embodiment, the data file repository 116 contains at least one directory on

disk drives in a personal computer. In an alternative embodiment, the data file

repository 116 may be a database. In another embodiment, the repository 116 may be a

network accessible disk drive that the distribution application 100 can access.

Alternatively, the repository 116 can also be a collection of directories enabling the user

to organize files by type, classification, or attribute" (Column 5, lines 42-59) and "In an

alternative embodiment shown in FIG. 9, the distribution application 1100 contains an

audio file module 1102, which includes an audio file player 1106, as well as an audio file

converter 1104. The audio file player 1106 plays files located in the data file repository

1116, while the audio file converter 1104 generates audio files either by sampling data

from a microphone or tape, or by converting data stored on a CD-ROM or hard disk into

a standard compressed audio file format. Converted audio files are placed in the

repository 1116, allowing other users in the community to access these new audio files. In addition, the distribution application 1100 may also contain a video file module 1108, which includes a video file player 1111, as well as a video file converter 1110. Much as in the audio example above, video images (either still, or full motion) are converted from external sources to compressed standard formats and are placed in the repository 1116. Likewise, video files in the repository 1116 are displayed to the user by the video file player 1111" (Column 13, lines 6-24). The examiner further notes that **Fanning** teaches **"the indexer configured to generate data including a text-based abstraction of an information item, the data abstracting the information item, when stored, requiring less storage capacity than a corresponding information item"** as "The file description comprises any of the following: a title of the data file, the size of the data file, the type of data file, any text associated with the data file, the creator of the data file, the quality rating of the data file, and the distribution application where the data file resides" (Column 3, lines 8-12), "The data files are of the type selected from the group comprising: an audio data file, a text data file, an image data file, a video data file, a software executable data file, or a data file containing combinations, such as a multimedia data file" (Column 3, lines 44-47), "In an alternative embodiment shown in FIG. 9, the distribution application 1100 contains an audio file module 1102, which includes an audio file player 1106, as well as an audio file converter 1104. The audio file player 1106 plays files located in the data file repository 1116, while the audio file converter 1104 generates audio files either by sampling data from a microphone or tape, or by converting data stored on a CD-ROM or hard disk into a standard compressed audio file format. Converted audio files are placed in the repository 1116, allowing other users in the community to access these new audio files. In addition, the distribution application 1100 may also contain a video file module 1108, which includes a video file player 1111, as well as a video file converter 1110. Much as in the audio example above, video images (either still, or full motion) are converted from external sources to compressed standard formats and are placed in the repository 1116. Likewise, video files in the repository 1116 are displayed to the user by the video file player 1111" (Column 13, lines 6-24). The examiner further notes that **Fanning**

teaches **"the indexer further configured to send the data abstracting the information item to the client system via said data network"** as "FIG. 1 also shows a network 22 interconnected between the distribution applications 10, 12. As can be seen in FIG. 1, all distribution applications 10, 12 have the same functionality. One user's file transfer client 14 can download files from another user's file transfer server 20, and vice versa" (Column 5, lines 23-29) and "In an alternative embodiment shown in FIG. 9, the distribution application 1100 contains an audio file module 1102, which includes an audio file player 1106, as well as an audio file converter 1104. The audio file player 1106 plays files located in the data file repository 1116, while the audio file converter 1104 generates audio files either by sampling data from a microphone or tape, or by converting data stored on a CD-ROM or hard disk into a standard compressed audio file format. Converted audio files are placed in the repository 1116, allowing other users in the community to access these new audio files. In addition, the distribution application 1100 may also contain a video file module 1108, which includes a video file player 1111, as well as a video file converter 1110. Much as in the audio example above, video images (either still, or full motion) are converted from external sources to compressed standard formats and are placed in the repository 1116. Likewise, video files in the repository 1116 are displayed to the user by the video file player 1111" (Column 13, lines 6-24).

      Fanning does not explicitly teach:

G) the indexer configured to maintain a register indicative of whether the data abstracting the information item has previously been transmitted to the client system;

H) to cause data abstracting information items which have not previously been transmitted to the client system to be forwarded to the client system; and

I) to update the register in accordance with the data abstracting information items which were forwarded to the client system.

      Weinmann, however, teaches **"the indexer configured to maintain a register indicative of whether the data abstracting the information item has previously been transmitted to the client system"** as "The method may further include selecting the pertinent software update based on a criterion for determining the pertinence of the

software update to the user, and the criterion may be determined by the user, or the criterion may be related to a determination of whether a pertinent software update has already been sent to the user" (Column 1, lines 54-59) and "The statistically determined list of pertinent updates 210 may be manually modified or updated by a person at the application provider and a final list of the most pertinent updates may be generated and grouped together in a common classification of pertinent updates 214. Manual updating of the statistically generated list of updates 210 may be necessary, for example, if a particularly critical update becomes available after the time period within which the statistical information about the pertinence of the available updates was generated, or if an update on the statistically generated list of updates 210 becomes obsolete or otherwise irrelevant to a user 200" (Column 4, lines 39-50), **"to cause data abstracting information items which have not been previously transmitted to the client system to be forwarded to the client system"** as "A method of automatically sending a pertinent software update to a user of an executable software application is disclosed. The method includes storing a plurality of software updates for the software application and ranking the pertinence of the individual software updates. At least one pertinent software update is selected from the plurality of software updates based on the ranking of the pertinence of the software update and automatically sent to the user" (Abstract), "The method may further include selecting the pertinent software update based on a criterion for determining the pertinence of the software update to the user, and the criterion may be determined by the user, or the criterion may be related to a determination of whether a pertinent software update has already been sent to the user" (Column 1, lines 54-59), and "The statistically determined list of pertinent updates 210 may be manually modified or updated by a person at the application provider and a final list of the most pertinent updates may be generated and grouped together in a common classification of pertinent updates 214. Manual updating of the statistically generated list of updates 210 may be necessary, for example, if a particularly critical update becomes available after the time period within which the statistical information about the pertinence of the available updates was generated, or if an update on the statistically generated list of updates 210 becomes obsolete or otherwise irrelevant to a user 200"

(Column 4, lines 39-50), and **"to update the register in accordance with the data abstracting information items which were forwarded to the client system"** as "The method may further include selecting the pertinent software update based on a criterion for determining the pertinence of the software update to the user, and the criterion may be determined by the user, or the criterion may be related to a determination of whether a pertinent software update has already been sent to the user" (Column 1, lines 54-59) and "The statistically determined list of pertinent updates 210 may be manually modified or updated by a person at the application provider and a final list of the most pertinent updates may be generated and grouped together in a common classification of pertinent updates 214. Manual updating of the statistically generated list of updates 210 may be necessary, for example, if a particularly critical update becomes available after the time period within which the statistical information about the pertinence of the available updates was generated, or if an update on the statistically generated list of updates 210 becomes obsolete or otherwise irrelevant to a user 200" (Column 4, lines 39-50).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Weinmann's** would have allowed **Fanning's** to provide a method that shuns the reactive sending of updates to users in favor of an automated system for transmitted updates, as noted by **Weinmann** (Column 1, lines 16-20).

Fanning and **Weinmann** do not explicitly teach:
B) including a node position generating unit configured to generate a node position in respect of each information item represented by said received data responsive to data received from said storage node, the node position generating unit configured to add a random dither component of up to ±1/2 the node separation to identical information items.

Kohonen, however, teaches **"including a node position generating unit configured to generate a node position in respect of each information item represented by said received data responsive to data received from said storage node, the node position generating unit configured to add a random dither component of up to ±1/2 the node separation to identical information items"** as

"With the newest versions of our programs the whole process of computation of the document map takes about six weeks on a six-processor SGI 02000 computer...The amount of main memory required was about 800 MB" (Page 582, Section C: Formation of the Document Map), "This time includes finding the keywords to label the map, forming the WWW-ages that are used in exploring the map, and indexing the map units for keyword searches" (Page 583, Section C: Formation of the Document Map), and "Given a search description, the matching units are found from the index and the best matches are returned and displayed as circles on the map" (Page 584, Section 2: Keyword Search).

The examiner further notes that the dither component limitation merely requires a value of *up to* ±1/2. Because 0 is within the defined range, than the broadest reasonable interpretation of the aforementioned dither component is that no such random dither is applied. Thus, **Kohonen's** node generation teaches the aforementioned.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Kohonen 's** would have allowed **Fanning's** and **Weinmann's** to provide a method for help a client understand the true meaning of individual texts and finding information of the highest interest, as noted by **Kohonen** (Section: Introduction).

Regarding claim 17, **Fanning** teaches an information retrieval client system comprising:
A) said client system being connectable via a data network to one or more information item storage nodes each comprising a store for storing a plurality of information items and an indexer (Column 5, lines 13-40, lines 42-59, Column 13, lines 6-24, Figure 3);
B) the indexer configured to generate data including a text-based abstraction of an information item, the data abstracting the information item, when stored, requiring less storage capacity than a corresponding information item (Column 3, lines 8-12, 44-47, Column 13, lines 6-24);

C) the indexer further configured to send the data abstracting the information item to the client system via said data network (Column 5, lines 13-40, Column 13, lines 6-24);

The examiner notes that **Fanning** teaches **"said client system being connectable via a data network to one or more information item storage nodes each comprising a store for storing a plurality of information items and an indexer"** as "FIG. 1 also shows a network 22 interconnected between the distribution applications 10, 12. As can be seen in FIG. 1, all distribution applications 10, 12 have the same functionality. One user's file transfer client 14 can download files from another user's file transfer server 20, and vice versa" (Column 5, lines 23-29), "FIG. 3 illustrates the system of the present invention having a first distribution application 100 and a second distribution application 212, a file index server 300, and a file index 302. Each distribution application 100, 212 preferably includes: a file transfer client 114, 214; a data file repository 116, 216; a graphical user interface 118, 218; a file transfer server 120, 220 and an inventory module 130, 230. Preferably, the data file repository, or repository, 116 shown in FIG. 3 is where the all of the data files to be shared are stored. In the preferred embodiment, the data file repository 116 contains at least one directory on disk drives in a personal computer. In an alternative embodiment, the data file repository 116 may be a database. In another embodiment, the repository 116 may be a network accessible disk drive that the distribution application 100 can access. Alternatively, the repository 116 can also be a collection of directories enabling the user to organize files by type, classification, or attribute" (Column 5, lines 42-59), and "In an alternative embodiment shown in FIG. 9, the distribution application 1100 contains an audio file module 1102, which includes an audio file player 1106, as well as an audio file converter 1104. The audio file player 1106 plays files located in the data file repository 1116, while the audio file converter 1104 generates audio files either by sampling data from a microphone or tape, or by converting data stored on a CD-ROM or hard disk into a standard compressed audio file format. Converted audio files are placed in the repository 1116, allowing other users in the community to access these new audio files. In addition, the distribution application 1100 may also contain a video file module 1108, which includes a video file player 1111, as well as a video file converter 1110. Much as

in the audio example above, video images (either still, or full motion) are converted from
external sources to compressed standard formats and are placed in the repository
1116. Likewise, video files in the repository 1116 are displayed to the user by the video
file player 1111" (Column 13, lines 6-24). The examiner further notes that **Fanning**
teaches **"the indexer configured to generate data including a text-based
abstraction of an information item, the data abstracting the information item,
when stored, requiring less storage capacity than a corresponding information
item"** as "The file description comprises any of the following: a title of the data file, the
size of the data file, the type of data file, any text associated with the data file, the
creator of the data file, the quality rating of the data file, and the distribution application
where the data file resides" (Column 3, lines 8-12), "The data files are of the type
selected from the group comprising: an audio data file, a text data file, an image data
file, a video data file, a software executable data file, or a data file containing
combinations, such as a multimedia data file" (Column 3, lines 44-47), "In an alternative
embodiment shown in FIG. 9, the distribution application 1100 contains an audio file
module 1102, which includes an audio file player 1106, as well as an audio file
converter 1104. The audio file player 1106 plays files located in the data file repository
1116, while the audio file converter 1104 generates audio files either by sampling data
from a microphone or tape, or by converting data stored on a CD-ROM or hard disk into
a standard compressed audio file format. Converted audio files are placed in the
repository 1116, allowing other users in the community to access these new audio files.
In addition, the distribution application 1100 may also contain a video file module 1108,
which includes a video file player 1111, as well as a video file converter 1110. Much as
in the audio example above, video images (either still, or full motion) are converted from
external sources to compressed standard formats and are placed in the repository
1116. Likewise, video files in the repository 1116 are displayed to the user by the video
file player 1111" (Column 13, lines 6-24). The examiner further notes that **Fanning**
teaches **"the indexer further configured to send the data abstracting the
information item to the client system via said data network"** as "FIG. 1 also shows
a network 22 interconnected between the distribution applications 10, 12. As can be

seen in FIG. 1, all distribution applications 10, 12 have the same functionality. One user's file transfer client 14 can download files from another user's file transfer server 20, and vice versa" (Column 5, lines 23-29) and "In an alternative embodiment shown in FIG. 9, the distribution application 1100 contains an audio file module 1102, which includes an audio file player 1106, as well as an audio file converter 1104. The audio file player 1106 plays files located in the data file repository 1116, while the audio file converter 1104 generates audio files either by sampling data from a microphone or tape, or by converting data stored on a CD-ROM or hard disk into a standard compressed audio file format. Converted audio files are placed in the repository 1116, allowing other users in the community to access these new audio files. In addition, the distribution application 1100 may also contain a video file module 1108, which includes a video file player 1111, as well as a video file converter 1110. Much as in the audio example above, video images (either still, or full motion) are converted from external sources to compressed standard formats and are placed in the repository 1116. Likewise, video files in the repository 1116 are displayed to the user by the video file player 1111" (Column 13, lines 6-24).

Fanning does not explicitly teach:

D) the indexer configured to maintain a register indicative of whether the data abstracting the information item has previously been transmitted to the client system;

E) to cause data abstracting information items which have not previously been transmitted to the client system to be forwarded to the client system; and

F) to update the register in accordance with the data abstracting information items which were forwarded to the client system.

Weinmann, however, teaches **"the indexer configured to maintain a register indicative of whether the data abstracting the information item has previously been transmitted to the client system"** as "The method may further include selecting the pertinent software update based on a criterion for determining the pertinence of the software update to the user, and the criterion may be determined by the user, or the criterion may be related to a determination of whether a pertinent software update has already been sent to the user" (Column 1, lines 54-59) and "The statistically determined

list of pertinent updates 210 may be manually modified or updated by a person at the application provider and a final list of the most pertinent updates may be generated and grouped together in a common classification of pertinent updates 214. Manual updating of the statistically generated list of updates 210 may be necessary, for example, if a particularly critical update becomes available after the time period within which the statistical information about the pertinence of the available updates was generated, or if an update on the statistically generated list of updates 210 becomes obsolete or otherwise irrelevant to a user 200" (Column 4, lines 39-50), **"to cause data abstracting information items which have not been previously transmitted to the client system to be forwarded to the client system"** as "A method of automatically sending a pertinent software update to a user of an executable software application is disclosed. The method includes storing a plurality of software updates for the software application and ranking the pertinence of the individual software updates. At least one pertinent software update is selected from the plurality of software updates based on the ranking of the pertinence of the software update and automatically sent to the user" (Abstract), "The method may further include selecting the pertinent software update based on a criterion for determining the pertinence of the software update to the user, and the criterion may be determined by the user, or the criterion may be related to a determination of whether a pertinent software update has already been sent to the user" (Column 1, lines 54-59), and "The statistically determined list of pertinent updates 210 may be manually modified or updated by a person at the application provider and a final list of the most pertinent updates may be generated and grouped together in a common classification of pertinent updates 214. Manual updating of the statistically generated list of updates 210 may be necessary, for example, if a particularly critical update becomes available after the time period within which the statistical information about the pertinence of the available updates was generated, or if an update on the statistically generated list of updates 210 becomes obsolete or otherwise irrelevant to a user 200" (Column 4, lines 39-50), and **"to update the register in accordance with the data abstracting information items which were forwarded to the client system"** as "The method may further include selecting the pertinent software update based on a criterion

for determining the pertinence of the software update to the user, and the criterion may be determined by the user, or the criterion may be related to a determination of whether a pertinent software update has already been sent to the user" (Column 1, lines 54-59) and "The statistically determined list of pertinent updates 210 may be manually modified or updated by a person at the application provider and a final list of the most pertinent updates may be generated and grouped together in a common classification of pertinent updates 214. Manual updating of the statistically generated list of updates 210 may be necessary, for example, if a particularly critical update becomes available after the time period within which the statistical information about the pertinence of the available updates was generated, or if an update on the statistically generated list of updates 210 becomes obsolete or otherwise irrelevant to a user 200" (Column 4, lines 39-50).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Weinmann's** would have allowed **Fanning's** to provide a method that shuns the reactive sending of updates to users in favor of an automated system for transmitted updates, as noted by **Weinmann** (Column 1, lines 16-20).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Weinmann's** would have allowed **Fanning's** to provide a method to reduce bottlenecking when forwarding file requests in a distributed network, as noted by **Weinmann** (Paragraph 06).

Fanning and **Weinmann** do not explicitly teach:
G) the client system comprising a node position generating unit configured to generate a node position in respect of each information item represented by said received data responsive to data abstracting the information item received from said indexer of a storage node, the node position generating unit configured to add a random dither component of up to ±1/2 the node separation to identical information items.

Kohonen, however, teaches **"the client system comprising a node position generating unit configured to generate a node position in respect of each information item represented by said received data responsive to data received**

**from said indexer of a storage node, the node position generating unit configured
to add a random dither component of up to ±1/2 the node separation to identical
information items"** as "With the newest versions of our programs the whole process of
computation of the document map takes about six weeks on a six-processor SGI O2000
computer...The amount of main memory required was about 800 MB" (Page 582,
Section C: Formation of the Document Map), "This time includes finding the keywords to
label the map, forming the WWW-ages that are used in exploring the map, and indexing
the map units for keyword searches" (Page 583, Section C: Formation of the Document
Map), and "Given a search description, the matching units are found from the index and
the best matches are returned and displayed as circles on the map" (Page 584, Section
2: Keyword Search).

The examiner further notes that the dither component limitation merely requires a
value of _up to_ ±1/2. Because 0 is within the defined range, than the broadest
reasonable interpretation of the aforementioned dither component is that no such
random dither is applied. Thus, **Kohonen's** node generation teaches the
aforementioned.

It would have been obvious to one of ordinary skill in the art at the time the
invention was made to combine the teachings of the cited references because teaching
Kohonen 's would have allowed **Fanning's** and **Weinmann's** to provide a method for
help a client understand the true meaning of individual texts and finding information of
the highest interest, as noted by **Kohonen** (Section: Introduction).

Regarding claim 18, **Fanning** does not explicitly teach an information client
retrieval system comprising:
A) a portable data processing device.

Weinmann, however, teaches **"a portable data processing device"** as
"Embodiments of the present invention comprise a network of file storage systems,
each system having index information about at least some of the files in the network,
and each system having the ability to communicate with a subset of nodes in the
network (for example, a user of a file storage system may communicate with his or her

friends and family via their file storage systems). In various embodiments, a file storage system may be a personal computer (PC), an engineering workstation, a set top box, a personal digital assistant (PDA), a cellular phone, a mainframe computer, an Internet appliance, or any other device for storing and accessing file data via a communications network" (Paragraph 14).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Weinmann's** would have allowed **Fanning's** to provide a method to reduce bottlenecking when forwarding file requests in a distributed network, as noted by **Weinmann** (Paragraph 06).

Regarding claim 19, **Fanning** further teaches an information retrieval client system comprising:

A) A video acquisition and/or processing apparatus comprising the client system according to claim 17 (Column 13, lines 16-24).

The examiner notes that **Fanning** teaches **"A video acquisition and/or processing apparatus comprising the client system according to claim 17"** as "video retrieval, our current interfaces segment video into shots; and represent them with single frames" (Page 1 ,Section 1, Figure 1).

Regarding claim 20, **Fanning** teaches an information retrieval method comprising:

A) one or more information item storage nodes connected to said data network (Column 5, lines 13-40);

B) storing a plurality of information items at each storage node (Column 42-59, Figure 3);

C) generating by each storage node including a text-based abstraction of an information item stored at that storage node, the data abstracting the information item, when stored, requiring less storage capacity than a corresponding information item (Column 3, lines 8-12, 44-47, Column 13, lines 6-24).

The examiner notes that **Fanning** teaches **"one or more information item
storage nodes connected to said data network"** as "FIG. 1 also shows a network 22
interconnected between the distribution applications 10, 12. As can be seen in FIG. 1,
all distribution applications 10, 12 have the same functionality. One user's file transfer
client 14 can download files from another user's file transfer server 20, and vice versa"
(Column 5, lines 23-29). The examiner further notes that **Fanning** teaches **"storing a
plurality of information items at each storage node"** as "FIG. 3 illustrates the system
of the present invention having a first distribution application 100 and a second
distribution application 212, a file index server 300, and a file index 302. Each
distribution application 100, 212 preferably includes: a file transfer client 114, 214; a
data file repository 116, 216; a graphical user interface 118, 218; a file transfer server
120, 220 and an inventory module 130, 230. Preferably, the data file repository, or
repository, 116 shown in FIG. 3 is where the all of the data files to be shared are stored.
In the preferred embodiment, the data file repository 116 contains at least one directory
on disk drives in a personal computer. In an alternative embodiment, the data file
repository 116 may be a database. In another embodiment, the repository 116 may be a
network accessible disk drive that the distribution application 100 can access.
Alternatively, the repository 116 can also be a collection of directories enabling the user
to organize files by type, classification, or attribute" (Column 5, lines 42-59). The
examiner further notes that **Fanning** teaches **"generating by each storage node data
abstracting an information item stored at that storage node, the data abstracting
the information item, when stored, requiring less storage capacity than a
corresponding information item"** as "The file description comprises any of the
following: a title of the data file, the size of the data file, the type of data file, any text
associated with the data file, the creator of the data file, the quality rating of the data file,
and the distribution application where the data file resides" (Column 3, lines 8-12), "The
data files are of the type selected from the group comprising: an audio data file, a text
data file, an image data file, a video data file, a software executable data file, or a data
file containing combinations, such as a multimedia data file" (Column 3, lines 44-47), "In
an alternative embodiment shown in FIG. 9, the distribution application 1100 contains

an audio file module 1102, which includes an audio file player 1106, as well as an audio file converter 1104. The audio file player 1106 plays files located in the data file repository 1116, while the audio file converter 1104 generates audio files either by sampling data from a microphone or tape, or by converting data stored on a CD-ROM or hard disk into a standard compressed audio file format. Converted audio files are placed in the repository 1116, allowing other users in the community to access these new audio files. In addition, the distribution application 1100 may also contain a video file module 1108, which includes a video file player 1111, as well as a video file converter 1110. Much as in the audio example above, video images (either still, or full motion) are converted from external sources to compressed standard formats and are placed in the repository 1116. Likewise, video files in the repository 1116 are displayed to the user by the video file player 1111" (Column 13, lines 6-24).

Fanning does not explicitly teach:

D) maintaining by an indexer of each storage node a register indicative of whether the data abstracting the information item has previously been transmitted to the client system;

E) forwarding data abstracting information items which have not previously been transmitted to the client system from the storage node to the client system;

F) updating the register in accordance with the data abstracting information items which were forwarded to the client system.

Weinmann, however, teaches **"maintaining by an indexer of each storage node a register indicative of whether the data abstracting the information item has previously been transmitted to the client system"** as "The method may further include selecting the pertinent software update based on a criterion for determining the pertinence of the software update to the user, and the criterion may be determined by the user, or the criterion may be related to a determination of whether a pertinent software update has already been sent to the user" (Column 1, lines 54-59) and "The statistically determined list of pertinent updates 210 may be manually modified or updated by a person at the application provider and a final list of the most pertinent updates may be generated and grouped together in a common classification of pertinent

updates 214. Manual updating of the statistically generated list of updates 210 may be necessary, for example, if a particularly critical update becomes available after the time period within which the statistical information about the pertinence of the available updates was generated, or if an update on the statistically generated list of updates 210 becomes obsolete or otherwise irrelevant to a user 200" (Column 4, lines 39-50), **"forwarding data abstracting information items which have not previously been transmitted to the client system from the storage node to the client system"** as "A method of automatically sending a pertinent software update to a user of an executable software application is disclosed. The method includes storing a plurality of software updates for the software application and ranking the pertinence of the individual software updates. At least one pertinent software update is selected from the plurality of software updates based on the ranking of the pertinence of the software update and automatically sent to the user" (Abstract), "The method may further include selecting the pertinent software update based on a criterion for determining the pertinence of the software update to the user, and the criterion may be determined by the user, or the criterion may be related to a determination of whether a pertinent software update has already been sent to the user" (Column 1, lines 54-59), and "The statistically determined list of pertinent updates 210 may be manually modified or updated by a person at the application provider and a final list of the most pertinent updates may be generated and grouped together in a common classification of pertinent updates 214. Manual updating of the statistically generated list of updates 210 may be necessary, for example, if a particularly critical update becomes available after the time period within which the statistical information about the pertinence of the available updates was generated, or if an update on the statistically generated list of updates 210 becomes obsolete or otherwise irrelevant to a user 200" (Column 4, lines 39-50), and **"updating the register in accordance with the data abstracting information items which were forwarded to the client system"** as "The method may further include selecting the pertinent software update based on a criterion for determining the pertinence of the software update to the user, and the criterion may be determined by the user, or the criterion may be related to a determination of whether a pertinent software update has already been

sent to the user" (Column 1, lines 54-59) and "The statistically determined list of pertinent updates 210 may be manually modified or updated by a person at the application provider and a final list of the most pertinent updates may be generated and grouped together in a common classification of pertinent updates 214. Manual updating of the statistically generated list of updates 210 may be necessary, for example, if a particularly critical update becomes available after the time period within which the statistical information about the pertinence of the available updates was generated, or if an update on the statistically generated list of updates 210 becomes obsolete or otherwise irrelevant to a user 200" (Column 4, lines 39-50).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Weinmann's** would have allowed **Fanning's** to provide a method that shuns the reactive sending of updates to users in favor of an automated system for transmitted updates, as noted by **Weinmann** (Column 1, lines 16-20).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Weinmann's** would have allowed **Fanning's** to provide a method to reduce bottlenecking when forwarding file requests in a distributed network, as noted by **Weinmann** (Paragraph 06).

Fanning and **Weinmann** do not explicitly teach:
G) generating a node position in respect of each information item represented by said received data by said client system responsive to the data abstracting the information item received from the indexer of the storage node, the node position generating unit configured to add a random dither component of up to ±1/2 the node separation to identical information items.

Kohonen, however, teaches **"generating a node position in respect of each information item represented by said received data by said client system responsive to the data abstracting the information item received from the indexer of the storage node, the node position generating unit configured to add a random dither component of up to ±1/2 the node separation to identical**

information items" as "With the newest versions of our programs the whole process of computation of the document map takes about six weeks on a six-processor SGI 02000 computer...The amount of main memory required was about 800 MB" (Page 582, Section C: Formation of the Document Map), "This time includes finding the keywords to label the map, forming the WWW-ages that are used in exploring the map, and indexing the map units for keyword searches" (Page 583, Section C: Formation of the Document Map), and "Given a search description, the matching units are found from the index and the best matches are returned and displayed as circles on the map" (Page 584, Section 2: Keyword Search).

The examiner further notes that the dither component limitation merely requires a value of _up to_ ±1/2. Because 0 is within the defined range, than the broadest reasonable interpretation of the aforementioned dither component is that no such random dither is applied. Thus, **Kohonen's** node generation teaches the aforementioned.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Kohonen 's** would have allowed **Fanning's** and **Weinmann's** to provide a method for help a client understand the true meaning of individual texts and finding information of the highest interest, as noted by **Kohonen** (Section: Introduction).

Regarding claim 21, **Fanning** teaches a method comprising:

B) said method comprising the steps of: storing a plurality of information items (Column 5, lines 13-40); and

C) generating including a text-based abstraction of the information items (Column 3, lines 8-12, 44-47, Column 13, lines 6-24);

D) the data abstracting the information items, when stored, requiring less storage capacity than a corresponding information item (Column 3, lines 8-12, 44-47, Column 13, lines 6-24);

The examiner notes that **Fanning** teaches **"said method comprising the steps of: storing a plurality of information items"** as "It should be understood in this

description that although only two distribution applications 10, 12 communicating with each other are explicitly discussed, any number of distribution applications may be utilized in the system of the present invention. This is shown in FIG. 2 wherein a plurality of client servers, each denoted as C/S 12, are connected to one another in a system. As shown in FIG. 2, once a C/S 12 downloads a file from another C/S 12, it is able to distribute the file downloaded to other C/S 12 applications in the system. The particular components within system of the present invention will now be discussed" (Column 5, lines 29-40). The examiner further notes that **Fanning** teaches **"generating data abstracting the information items"** as "The file description comprises any of the following: a title of the data file, the size of the data file, the type of data file, any text associated with the data file, the creator of the data file, the quality rating of the data file, and the distribution application where the data file resides" (Column 3, lines 8-12), "The data files are of the type selected from the group comprising: an audio data file, a text data file, an image data file, a video data file, a software executable data file, or a data file containing combinations, such as a multimedia data file" (Column 3, lines 44-47), "In an alternative embodiment shown in FIG. 9, the distribution application 1100 contains an audio file module 1102, which includes an audio file player 1106, as well as an audio file converter 1104. The audio file player 1106 plays files located in the data file repository 1116, while the audio file converter 1104 generates audio files either by sampling data from a microphone or tape, or by converting data stored on a CD-ROM or hard disk into a standard compressed audio file format. Converted audio files are placed in the repository 1116, allowing other users in the community to access these new audio files. In addition, the distribution application 1100 may also contain a video file module 1108, which includes a video file player 1111, as well as a video file converter 1110. Much as in the audio example above, video images (either still, or full motion) are converted from external sources to compressed standard formats and are placed in the repository 1116. Likewise, video files in the repository 1116 are displayed to the user by the video file player 1111" (Column 13, lines 6-24). The examiner further notes that **Fanning** teaches **"the data abstracting the information items, when stored, requiring less storage**

capacity than a corresponding information item" as "The file description comprises any of the following: a title of the data file, the size of the data file, the type of data file, any text associated with the data file, the creator of the data file, the quality rating of the data file, and the distribution application where the data file resides" (Column 3, lines 8-12), "The data files are of the type selected from the group comprising: an audio data file, a text data file, an image data file, a video data file, a software executable data file, or a data file containing combinations, such as a multimedia data file" (Column 3, lines 44-47), "In an alternative embodiment shown in FIG. 9, the distribution application 1100 contains an audio file module 1102, which includes an audio file player 1106, as well as an audio file converter 1104. The audio file player 1106 plays files located in the data file repository 1116, while the audio file converter 1104 generates audio files either by sampling data from a microphone or tape, or by converting data stored on a CD-ROM or hard disk into a standard compressed audio file format. Converted audio files are placed in the repository 1116, allowing other users in the community to access these new audio files. In addition, the distribution application 1100 may also contain a video file module 1108, which includes a video file player 1111, as well as a video file converter 1110. Much as in the audio example above, video images (either still, or full motion) are converted from external sources to compressed standard formats and are placed in the repository 1116. Likewise, video files in the repository 1116 are displayed to the user by the video file player 1111" (Column 13, lines 6-24).

Fanning does not explicitly teach:

E) maintaining by an indexer of each storage node a register indicative of whether the data abstracting the information item has previously been transmitted to the client system;

F) forwarding data abstracting information items which have not previously been transmitted to the client system to be forwarded to the client system; and

G) updating the register in accordance with the data abstracting information items which were forwarded to the client system.

Weinmann, however, teaches **"maintaining by an indexer of each storage node a register indicative of whether the data abstracting the information item**

has previously been transmitted to the client system" as "The method may further include selecting the pertinent software update based on a criterion for determining the pertinence of the software update to the user, and the criterion may be determined by the user, or the criterion may be related to a determination of whether a pertinent software update has already been sent to the user" (Column 1, lines 54-59) and "The statistically determined list of pertinent updates 210 may be manually modified or updated by a person at the application provider and a final list of the most pertinent updates may be generated and grouped together in a common classification of pertinent updates 214. Manual updating of the statistically generated list of updates 210 may be necessary, for example, if a particularly critical update becomes available after the time period within which the statistical information about the pertinence of the available updates was generated, or if an update on the statistically generated list of updates 210 becomes obsolete or otherwise irrelevant to a user 200" (Column 4, lines 39-50), **"forwarding data abstracting information items which have not previously been transmitted to the client system from the storage node to the client system"** as "A method of automatically sending a pertinent software update to a user of an executable software application is disclosed. The method includes storing a plurality of software updates for the software application and ranking the pertinence of the individual software updates. At least one pertinent software update is selected from the plurality of software updates based on the ranking of the pertinence of the software update and automatically sent to the user" (Abstract), "The method may further include selecting the pertinent software update based on a criterion for determining the pertinence of the software update to the user, and the criterion may be determined by the user, or the criterion may be related to a determination of whether a pertinent software update has already been sent to the user" (Column 1, lines 54-59), and "The statistically determined list of pertinent updates 210 may be manually modified or updated by a person at the application provider and a final list of the most pertinent updates may be generated and grouped together in a common classification of pertinent updates 214. Manual updating of the statistically generated list of updates 210 may be necessary, for example, if a particularly critical update becomes available after the time period within which the

statistical information about the pertinence of the available updates was generated, or if
an update on the statistically generated list of updates 210 becomes obsolete or
otherwise irrelevant to a user 200" (Column 4, lines 39-50), and **"updating the register
in accordance with the data abstracting information items which were forwarded
to the client system"** as "The method may further include selecting the pertinent
software update based on a criterion for determining the pertinence of the software
update to the user, and the criterion may be determined by the user, or the criterion may
be related to a determination of whether a pertinent software update has already been
sent to the user" (Column 1, lines 54-59) and "The statistically determined list of
pertinent updates 210 may be manually modified or updated by a person at the
application provider and a final list of the most pertinent updates may be generated and
grouped together in a common classification of pertinent updates 214. Manual updating
of the statistically generated list of updates 210 may be necessary, for example, if a
particularly critical update becomes available after the time period within which the
statistical information about the pertinence of the available updates was generated, or if
an update on the statistically generated list of updates 210 becomes obsolete or
otherwise irrelevant to a user 200" (Column 4, lines 39-50).

It would have been obvious to one of ordinary skill in the art at the time the
invention was made to combine the teachings of the cited references because teaching
Weinmann's would have allowed **Fanning's** to provide a method that shuns the
reactive sending of updates to users in favor of an automated system for transmitted
updates, as noted by **Weinmann** (Column 1, lines 16-20).

It would have been obvious to one of ordinary skill in the art at the time the
invention was made to combine the teachings of the cited references because teaching
Weinmann's would have allowed **Fanning's** to provide a method to reduce
bottlenecking when forwarding file requests in a distributed network, as noted by
Weinmann (Paragraph 06).

Fanning and **Weinmann** do not explicitly teach:
A) said storage node being connectable via a data network to an information retrieval
client system having logic, responsive to data received from the storage node, for

generating a node position in respect of each information item represented by the received data, the node position generating unit configured to add a random dither component of up to ±1/2 the node separation to identical information items.

Kohonen, however, teaches **"said storage node being connectable via a data network to an information retrieval client system having logic, responsive to data received from the storage node, for generating a node position in respect of each information item represented by the received data, the node position generating unit configured to add a random dither component of up to ±1/2 the node separation to identical information items"** as "With the newest versions of our programs the whole process of computation of the document map takes about six weeks on a six-processor SGI 02000 computer...The amount of main memory required was about 800 MB" (Page 582, Section C: Formation of the Document Map), "This time includes finding the keywords to label the map, forming the WWW-ages that are used in exploring the map, and indexing the map units for keyword searches" (Page 583, Section C: Formation of the Document Map), and "Given a search description, the matching units are found from the index and the best matches are returned and displayed as circles on the map" (Page 584, Section 2: Keyword Search).

The examiner further notes that the dither component limitation merely requires a value of *up to* ±1/2. Because 0 is within the defined range, than the broadest reasonable interpretation of the aforementioned dither component is that no such random dither is applied. Thus, **Kohonen**'s node generation teaches the aforementioned.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Kohonen 's** would have allowed **Fanning's** and **Weinmann's** to provide a method for help a client understand the true meaning of individual texts and finding information of the highest interest, as noted by **Kohonen** (Section: Introduction).

Regarding claim 22, **Fanning** teaches a method comprising:
A) said client system being connectable via a data network to one or more information

item storage nodes each comprising a store for storing a plurality of information items
and an indexer (Column 5, lines 13-59, Column 13, lines 6-24)

B) the indexer configured to generate data including a text-based abstraction of an
information item (Column 3, lines 8-12, 44-47, Column 13, lines 6-24);

C) the data abstracting the information item, when stored, requiring less storage
capacity than a corresponding information item (Column 13, lines 6-24);

D) transmitting the data abstracting the information item to the client system via the
data network (Column 5, lines 13-40, Column 13, lines 6-24).

The examiner notes that **Fanning** teaches **"said client system being
connectable via a data network to one or more information item storage nodes
each comprising a store for storing a plurality of information items and an
indexer"** as "FIG. 1 also shows a network 22 interconnected between the distribution
applications 10, 12. As can be seen in FIG. 1, all distribution applications 10, 12 have
the same functionality. One user's file transfer client 14 can download files from another
user's file transfer server 20, and vice versa" (Column 5, lines 23-29), "FIG. 3 illustrates
the system of the present invention having a first distribution application 100 and a
second distribution application 212, a file index server 300, and a file index 302. Each
distribution application 100, 212 preferably includes: a file transfer client 114, 214; a
data file repository 116, 216; a graphical user interface 118, 218; a file transfer server
120, 220 and an inventory module 130, 230. Preferably, the data file repository, or
repository, 116 shown in FIG. 3 is where the all of the data files to be shared are stored.
In the preferred embodiment, the data file repository 116 contains at least one directory
on disk drives in a personal computer. In an alternative embodiment, the data file
repository 116 may be a database. In another embodiment, the repository 116 may be a
network accessible disk drive that the distribution application 100 can access.
Alternatively, the repository 116 can also be a collection of directories enabling the user
to organize files by type, classification, or attribute" (Column 5, lines 42-59), and "In an
alternative embodiment shown in FIG. 9, the distribution application 1100 contains an
audio file module 1102, which includes an audio file player 1106, as well as an audio file
converter 1104. The audio file player 1106 plays files located in the data file repository

1116, while the audio file converter 1104 generates audio files either by sampling data from a microphone or tape, or by converting data stored on a CD-ROM or hard disk into a standard compressed audio file format. Converted audio files are placed in the repository 1116, allowing other users in the community to access these new audio files. In addition, the distribution application 1100 may also contain a video file module 1108, which includes a video file player 1111, as well as a video file converter 1110. Much as in the audio example above, video images (either still, or full motion) are converted from external sources to compressed standard formats and are placed in the repository 1116. Likewise, video files in the repository 1116 are displayed to the user by the video file player 1111" (Column 13, lines 6-24). The examiner notes that **Fanning** teaches **"the indexer configured to generate data including a text-based abstraction of an information item"** as "The file description comprises any of the following: a title of the data file, the size of the data file, the type of data file, any text associated with the data file, the creator of the data file, the quality rating of the data file, and the distribution application where the data file resides" (Column 3, lines 8-12), "The data files are of the type selected from the group comprising: an audio data file, a text data file, an image data file, a video data file, a software executable data file, or a data file containing combinations, such as a multimedia data file" (Column 3, lines 44-47), "In an alternative embodiment shown in FIG. 9, the distribution application 1100 contains an audio file module 1102, which includes an audio file player 1106, as well as an audio file converter 1104. The audio file player 1106 plays files located in the data file repository 1116, while the audio file converter 1104 generates audio files either by sampling data from a microphone or tape, or by converting data stored on a CD-ROM or hard disk into a standard compressed audio file format. Converted audio files are placed in the repository 1116, allowing other users in the community to access these new audio files. In addition, the distribution application 1100 may also contain a video file module 1108, which includes a video file player 1111, as well as a video file converter 1110. Much as in the audio example above, video images (either still, or full motion) are converted from external sources to compressed standard formats and are placed in the repository 1116. Likewise, video files in the repository 1116 are displayed to the user by the video

file player 1111" (Column 13, lines 6-24). The examiner further notes that **Fanning** teaches **"the data abstracting the information item, when stored, requiring less storage capacity than a corresponding information item"** as "The file description comprises any of the following: a title of the data file, the size of the data file, the type of data file, any text associated with the data file, the creator of the data file, the quality rating of the data file, and the distribution application where the data file resides" (Column 3, lines 8-12), "The data files are of the type selected from the group comprising: an audio data file, a text data file, an image data file, a video data file, a software executable data file, or a data file containing combinations, such as a multimedia data file" (Column 3, lines 44-47), "In an alternative embodiment shown in FIG. 9, the distribution application 1100 contains an audio file module 1102, which includes an audio file player 1106, as well as an audio file converter 1104. The audio file player 1106 plays files located in the data file repository 1116, while the audio file converter 1104 generates audio files either by sampling data from a microphone or tape, or by converting data stored on a CD-ROM or hard disk into a standard compressed audio file format. Converted audio files are placed in the repository 1116, allowing other users in the community to access these new audio files. In addition, the distribution application 1100 may also contain a video file module 1108, which includes a video file player 1111, as well as a video file converter 1110. Much as in the audio example above, video images (either still, or full motion) are converted from external sources to compressed standard formats and are placed in the repository 1116. Likewise, video files in the repository 1116 are displayed to the user by the video file player 1111" (Column 13, lines 6-24). The examiner further notes that **Fanning** teaches **"transmitting the data abstracting the information item to the client system via the data network"** as "FIG. 1 also shows a network 22 interconnected between the distribution applications 10, 12. As can be seen in FIG. 1, all distribution applications 10, 12 have the same functionality. One user's file transfer client 14 can download files from another user's file transfer server 20, and vice versa" (Column 5, lines 23-29) and "In an alternative embodiment shown in FIG. 9, the distribution application 1100 contains an audio file module 1102, which includes an audio file player 1106, as well as

an audio file converter 1104. The audio file player 1106 plays files located in the data file repository 1116, while the audio file converter 1104 generates audio files either by sampling data from a microphone or tape, or by converting data stored on a CD-ROM or hard disk into a standard compressed audio file format. Converted audio files are placed in the repository 1116, allowing other users in the community to access these new audio files. In addition, the distribution application 1100 may also contain a video file module 1108, which includes a video file player 1111, as well as a video file converter 1110. Much as in the audio example above, video images (either still, or full motion) are converted from external sources to compressed standard formats and are placed in the repository 1116. Likewise, video files in the repository 1116 are displayed to the user by the video file player 1111" (Column 13, lines 6-24).

      Fanning does not explicitly teach:

F) maintaining by an indexer of each storage node a register indicative of whether the data abstracting the information item has previously been transmitted to the client system;

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H) updating the register in accordance with the data abstracting information items which were forwarded to the client system.

      Weinmann, however, teaches **"maintaining by an indexer of each storage node a register indicative of whether the data abstracting the information item has previously been transmitted to the client system"** as "The method may further include selecting the pertinent software update based on a criterion for determining the pertinence of the software update to the user, and the criterion may be determined by the user, or the criterion may be related to a determination of whether a pertinent software update has already been sent to the user" (Column 1, lines 54-59) and "The statistically determined list of pertinent updates 210 may be manually modified or updated by a person at the application provider and a final list of the most pertinent updates may be generated and grouped together in a common classification of pertinent updates 214. Manual updating of the statistically generated list of updates 210 may be

necessary, for example, if a particularly critical update becomes available after the time period within which the statistical information about the pertinence of the available updates was generated, or if an update on the statistically generated list of updates 210 becomes obsolete or otherwise irrelevant to a user 200" (Column 4, lines 39-50), **"forwarding data abstracting information items which have not previously been transmitted to the client system from the storage node to the client system"** as "A method of automatically sending a pertinent software update to a user of an executable software application is disclosed. The method includes storing a plurality of software updates for the software application and ranking the pertinence of the individual software updates. At least one pertinent software update is selected from the plurality of software updates based on the ranking of the pertinence of the software update and automatically sent to the user" (Abstract), "The method may further include selecting the pertinent software update based on a criterion for determining the pertinence of the software update to the user, and the criterion may be determined by the user, or the criterion may be related to a determination of whether a pertinent software update has already been sent to the user" (Column 1, lines 54-59), and "The statistically determined list of pertinent updates 210 may be manually modified or updated by a person at the application provider and a final list of the most pertinent updates may be generated and grouped together in a common classification of pertinent updates 214. Manual updating of the statistically generated list of updates 210 may be necessary, for example, if a particularly critical update becomes available after the time period within which the statistical information about the pertinence of the available updates was generated, or if an update on the statistically generated list of updates 210 becomes obsolete or otherwise irrelevant to a user 200" (Column 4, lines 39-50), and **"updating the register in accordance with the data abstracting information items which were forwarded to the client system"** as "The method may further include selecting the pertinent software update based on a criterion for determining the pertinence of the software update to the user, and the criterion may be determined by the user, or the criterion may be related to a determination of whether a pertinent software update has already been sent to the user" (Column 1, lines 54-59) and "The statistically determined list of

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statistical information about the pertinence of the available updates was generated, or if
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otherwise irrelevant to a user 200" (Column 4, lines 39-50).

It would have been obvious to one of ordinary skill in the art at the time the
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Fanning and **Weinmann** do not explicitly teach:
E) said method comprising: generating a node position in respect of each information
item represented by said received data responsive to the data abstracting the
information item received from said indexer of a storage node, the node position
generating unit configured to add a random dither component of up to ±1/2 the node
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position in respect of each information item represented by said received data
responsive to the data abstracting the information item received from said
indexer of a storage node, the node position generating unit configured to add a
random dither component of up to ±1/2 the node separation to identical
information items"** as "With the newest versions of our programs the whole process of

computation of the document map takes about six weeks on a six-processor SGI 02000 computer...The amount of main memory required was about 800 MB" (Page 582, Section C: Formation of the Document Map), "This time includes finding the keywords to label the map, forming the WWW-ages that are used in exploring the map, and indexing the map units for keyword searches" (Page 583, Section C: Formation of the Document Map), and "Given a search description, the matching units are found from the index and the best matches are returned and displayed as circles on the map" (Page 584, Section 2: Keyword Search).

The examiner further notes that the dither component limitation merely requires a value of *up to* ±1/2. Because 0 is within the defined range, than the broadest reasonable interpretation of the aforementioned dither component is that no such random dither is applied. Thus, **Kohonen's** node generation teaches the aforementioned.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Kohonen 's** would have allowed **Fanning's** and **Weinmann's** to provide a method for help a client understand the true meaning of individual texts and finding information of the highest interest, as noted by **Kohonen** (Section: Introduction).

Regarding claim 23, **Fanning** further teaches a method comprising:
A) A non-transitory computer readable medium including computer executable instructions, wherein the instructions, when executed by a processor, cause the processor to perform according to any one of claims 20 to 22 (Column 5, lines 42-53).

The examiner notes that **Fanning** teaches **"A non-transitory computer readable medium including computer executable instructions, wherein the instructions, when executed by a processor, cause the processor to perform according to any one of claims 20 to 22"** as "FIG. 3 illustrates the system of the present invention having a first distribution application 100 and a second distribution application 212, a file index server 300, and a file index 302. Each distribution application 100, 212 preferably includes: a file transfer client 114, 214; a data file

repository 116, 216; a graphical user interface 118, 218; a file transfer server 120, 220
and an inventory module 130, 230. Preferably, the data file repository, or repository, 116
shown in FIG. 3 is where the all of the data files to be shared are stored. In the
preferred embodiment, the data file repository 116 contains at least one directory on
disk drives in a personal computer" (Column 5, lines 42-53).

Regarding claim 27, **Fanning** further teaches a method comprising:
A) wherein the data is metadata derived from the information item (Column 10, lines 34-
36).

The examiner notes that **Fanning** teaches **"wherein the data is metadata
derived from the information item"** as "The index server also optionally stores
information for each file description such as: filename; file data type (text, audio,
images, video, etc)" (Column 10, lines 34-36).

Regarding claim 28, **Fanning** and **Weinmann** do not explicitly teach a system
comprising:
A) wherein the data is the information item with all the stop words removed.

Kohonen, however, teaches **"wherein the data is the information item with
all the stop words removed"** as " The words occurring less than 50 times in the whole
corpus, as well as a set of common words in a stopword list of 1335 words were
removed. The remaining vocabulary consisted of 43 222 words. Finally, we omitted the
122 524 abstracts in which less than five words remained" (Page 581).

It would have been obvious to one of ordinary skill in the art at the time the
invention was made to combine the teachings of the cited references because teaching
Kohonen 's would have allowed **Fanning's** and **Weinmann's** to provide a method for
help a client understand the true meaning of individual texts and finding information of
the highest interest, as noted by **Kohonen** (Section: Introduction).

Regarding claim 29, **Fanning** and **Weinmann** do not explicitly teach a system
comprising:

A) wherein the data is a list of all stem words included in the information item.

Kohonen, however, teaches **"wherein the data is a list of all stem words included in the information item"** as " All words were converted to their base form using a stemmer" (Page 581).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Kohonen 's** would have allowed **Fanning's** and **Weinmann's** to provide a method for help a client understand the true meaning of individual texts and finding information of the highest interest, as noted by **Kohonen** (Section: Introduction).

Regarding claim 30, **Fanning** and **Weinmann** do not explicitly teach a system comprising:

A) wherein the data is a feature vector derived from the metadata.

Kohonen, however, teaches **"wherein the data is a feature vector derived from the metadata"** as "Any of the basic projection methods also can be used to organize textual data items, such as documents, if their contents are described statistically as some kind of metric feature vectors. For instance, if the collection of words used in a document is described as a histogram, the latter can serve as the input feature vector on the basis of which the document collection can be organized" (Page 574).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Kohonen 's** would have allowed **Fanning's** and **Weinmann's** to provide a method for help a client understand the true meaning of individual texts and finding information of the highest interest, as noted by **Kohonen** (Section: Introduction).

Regarding claim 31, **Fanning** teaches a system comprising:

A) a data network (Column 5, lines 13-40);

B) an information retrieval client system connected to said data network (Column 5, lines 13-40); and

C) a plurality of information item storage nodes connected to the data network (Column 5, lines 29-40);

D) wherein: each storage node comprises a store configured to store a plurality of information items and an indexer (Column 5, lines 13-40, 42-59, Column 13, lines 6-24, Figure 3);

E) the indexer configured to generate data including a feature-based abstraction of an information item, the data abstracting the information item, when stored, requiring less storage capacity than a corresponding information item (Column 3, lines 8-12, 44-47, Column 13, lines 6-24);

F) the indexer further configured to send the data abstracting the information item to the client system via said data network (Column 5, lines 13-40, Column 13, lines 6-24);

The examiner notes that **Fanning** teaches **"a data network"** as "FIG. 1 also shows a network 22 interconnected between the distribution applications 10, 12. As can be seen in FIG. 1, all distribution applications 10, 12 have the same functionality. One user's file transfer client 14 can download files from another user's file transfer server 20, and vice versa" (Column 5, lines 23-29). The examiner further notes that **Fanning** teaches **"an information retrieval client system connected to said data network"** as "FIG. 1 also shows a network 22 interconnected between the distribution applications 10, 12. As can be seen in FIG. 1, all distribution applications 10, 12 have the same functionality. One user's file transfer client 14 can download files from another user's file transfer server 20, and vice versa" (Column 5, lines 23-29). The examiner further notes that **Fanning** teaches **"a plurality of information item storage nodes connected to the data network"** as "It should be understood in this description that although only two distribution applications 10, 12 communicating with each other are explicitly discussed, any number of distribution applications may be utilized in the system of the present invention. This is shown in FIG. 2 wherein a plurality of client servers, each denoted as C/S 12, are connected to one another in a system. As shown in FIG. 2, once a C/S 12 downloads a file from another C/S 12, it is able to distribute the file downloaded to other C/S 12 applications in the system. The particular components within system of the present invention will now be discussed" (Column 5, lines 29-40).

The examiner further notes that **Fanning** teaches **"wherein: each storage node comprises a store configured to store a plurality of information items and an indexer"** as "FIG. 3 illustrates the system of the present invention having a first distribution application 100 and a second distribution application 212, a file index server 300, and a file index 302. Each distribution application 100, 212 preferably includes: a file transfer client 114, 214; a data file repository 116, 216; a graphical user interface 118, 218; a file transfer server 120, 220 and an inventory module 130, 230. Preferably, the data file repository, or repository, 116 shown in FIG. 3 is where the all of the data files to be shared are stored. In the preferred embodiment, the data file repository 116 contains at least one directory on disk drives in a personal computer. In an alternative embodiment, the data file repository 116 may be a database. In another embodiment, the repository 116 may be a network accessible disk drive that the distribution application 100 can access. Alternatively, the repository 116 can also be a collection of directories enabling the user to organize files by type, classification, or attribute" (Column 5, lines 42-59) and "In an alternative embodiment shown in FIG. 9, the distribution application 1100 contains an audio file module 1102, which includes an audio file player 1106, as well as an audio file converter 1104. The audio file player 1106 plays files located in the data file repository 1116, while the audio file converter 1104 generates audio files either by sampling data from a microphone or tape, or by converting data stored on a CD-ROM or hard disk into a standard compressed audio file format. Converted audio files are placed in the repository 1116, allowing other users in the community to access these new audio files. In addition, the distribution application 1100 may also contain a video file module 1108, which includes a video file player 1111, as well as a video file converter 1110. Much as in the audio example above, video images (either still, or full motion) are converted from external sources to compressed standard formats and are placed in the repository 1116. Likewise, video files in the repository 1116 are displayed to the user by the video file player 1111" (Column 13, lines 6-24). The examiner further notes that **Fanning** teaches **"the indexer configured to generate data including a feature-based abstraction of an information item, the data abstracting the information item, when stored, requiring less storage**

capacity than a corresponding information item" as "The file description comprises any of the following: a title of the data file, the size of the data file, the type of data file, any text associated with the data file, the creator of the data file, the quality rating of the data file, and the distribution application where the data file resides" (Column 3, lines 8-12), "The data files are of the type selected from the group comprising: an audio data file, a text data file, an image data file, a video data file, a software executable data file, or a data file containing combinations, such as a multimedia data file" (Column 3, lines 44-47), "In an alternative embodiment shown in FIG. 9, the distribution application 1100 contains an audio file module 1102, which includes an audio file player 1106, as well as an audio file converter 1104. The audio file player 1106 plays files located in the data file repository 1116, while the audio file converter 1104 generates audio files either by sampling data from a microphone or tape, or by converting data stored on a CD-ROM or hard disk into a standard compressed audio file format. Converted audio files are placed in the repository 1116, allowing other users in the community to access these new audio files. In addition, the distribution application 1100 may also contain a video file module 1108, which includes a video file player 1111, as well as a video file converter 1110. Much as in the audio example above, video images (either still, or full motion) are converted from external sources to compressed standard formats and are placed in the repository 1116. Likewise, video files in the repository 1116 are displayed to the user by the video file player 1111" (Column 13, lines 6-24). The examiner further notes that **Fanning** teaches **"the indexer further configured to send the data abstracting the information item to the client system via said data network"** as "FIG. 1 also shows a network 22 interconnected between the distribution applications 10, 12. As can be seen in FIG. 1, all distribution applications 10, 12 have the same functionality. One user's file transfer client 14 can download files from another user's file transfer server 20, and vice versa" (Column 5, lines 23-29) and "In an alternative embodiment shown in FIG. 9, the distribution application 1100 contains an audio file module 1102, which includes an audio file player 1106, as well as an audio file converter 1104. The audio file player 1106 plays files located in the data file repository 1116, while the audio file converter 1104 generates audio files either by sampling data from a microphone or

tape, or by converting data stored on a CD-ROM or hard disk into a standard compressed audio file format. Converted audio files are placed in the repository 1116, allowing other users in the community to access these new audio files. In addition, the distribution application 1100 may also contain a video file module 1108, which includes a video file player 1111, as well as a video file converter 1110. Much as in the audio example above, video images (either still, or full motion) are converted from external sources to compressed standard formats and are placed in the repository 1116. Likewise, video files in the repository 1116 are displayed to the user by the video file player 1111" (Column 13, lines 6-24).

Fanning does not explicitly teach:

G) the indexer configured to maintain a register indicative of whether the data abstracting the information item has previously been transmitted to the client system;

H) to cause data abstracting information items which have not been previously transmitted to the client system to be forwarded to the client system; and

I) to update the register in accordance with the data abstracting information items which were forwarded to the client system.

Weinmann, however, teaches **"the indexer configured to maintain a register indicative of whether the data abstracting the information item has previously been transmitted to the client system"** as "The method may further include selecting the pertinent software update based on a criterion for determining the pertinence of the software update to the user, and the criterion may be determined by the user, or the criterion may be related to a determination of whether a pertinent software update has already been sent to the user" (Column 1, lines 54-59) and "The statistically determined list of pertinent updates 210 may be manually modified or updated by a person at the application provider and a final list of the most pertinent updates may be generated and grouped together in a common classification of pertinent updates 214. Manual updating of the statistically generated list of updates 210 may be necessary, for example, if a particularly critical update becomes available after the time period within which the statistical information about the pertinence of the available updates was generated, or if an update on the statistically generated list of updates 210 becomes obsolete or

otherwise irrelevant to a user 200" (Column 4, lines 39-50), **"to cause data abstracting information items which have not been previously transmitted to the client system to be forwarded to the client system"** as "A method of automatically sending a pertinent software update to a user of an executable software application is disclosed. The method includes storing a plurality of software updates for the software application and ranking the pertinence of the individual software updates. At least one pertinent software update is selected from the plurality of software updates based on the ranking of the pertinence of the software update and automatically sent to the user" (Abstract), "The method may further include selecting the pertinent software update based on a criterion for determining the pertinence of the software update to the user, and the criterion may be determined by the user, or the criterion may be related to a determination of whether a pertinent software update has already been sent to the user" (Column 1, lines 54-59), and "The statistically determined list of pertinent updates 210 may be manually modified or updated by a person at the application provider and a final list of the most pertinent updates may be generated and grouped together in a common classification of pertinent updates 214. Manual updating of the statistically generated list of updates 210 may be necessary, for example, if a particularly critical update becomes available after the time period within which the statistical information about the pertinence of the available updates was generated, or if an update on the statistically generated list of updates 210 becomes obsolete or otherwise irrelevant to a user 200" (Column 4, lines 39-50), and **"to update the register in accordance with the data abstracting information items which were forwarded to the client system"** as "The method may further include selecting the pertinent software update based on a criterion for determining the pertinence of the software update to the user, and the criterion may be determined by the user, or the criterion may be related to a determination of whether a pertinent software update has already been sent to the user" (Column 1, lines 54-59) and "The statistically determined list of pertinent updates 210 may be manually modified or updated by a person at the application provider and a final list of the most pertinent updates may be generated and grouped together in a common classification of pertinent updates 214. Manual updating of the statistically generated list of updates 210 may be

necessary, for example, if a particularly critical update becomes available after the time period within which the statistical information about the pertinence of the available updates was generated, or if an update on the statistically generated list of updates 210 becomes obsolete or otherwise irrelevant to a user 200" (Column 4, lines 39-50).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Weinmann's** would have allowed **Fanning's** to provide a method that shuns the reactive sending of updates to users in favor of an automated system for transmitted updates, as noted by **Weinmann** (Column 1, lines 16-20).

Fanning and **Weinmann** do not explicitly teach:

J) said client system includes a node position generating unit configured to generate a node position in respect of each information item represented by said received data responsive to the data abstracting the information item received from said indexer of a storage node, the node position generating unit configured to add a random dither component of up to ±1/2 the node separation to identical information items.

Kohonen, however, teaches **"said client system includes a node position generating unit configured to generate a node position in respect of each information item represented by said received data responsive to the data abstracting the information item received from said indexer of a storage node, the node position generating unit configured to add a random dither component of up to ±1/2 the node separation to identical information items"** as "With the newest versions of our programs the whole process of computation of the document map takes about six weeks on a six-processor SGI 02000 computer...The amount of main memory required was about 800 MB" (Page 582, Section C: Formation of the Document Map), "This time includes finding the keywords to label the map, forming the WWW-ages that are used in exploring the map, and indexing the map units for keyword searches" (Page 583, Section C: Formation of the Document Map), and "Given a search description, the matching units are found from the index and the best matches are returned and displayed as circles on the map" (Page 584, Section 2: Keyword Search).

The examiner further notes that the dither component limitation merely requires a value of *up to* ±1/2. Because 0 is within the defined range, than the broadest reasonable interpretation of the aforementioned dither component is that no such random dither is applied. Thus, **Kohonen's** node generation teaches the aforementioned.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Kohonen 's** would have allowed **Fanning's** and **Weinmann's** to provide a method for help a client understand the true meaning of individual texts and finding information of the highest interest, as noted by **Kohonen** (Section: Introduction).

Regarding claim 32, **Fanning** and **Weinmann** do not explicitly teach a system comprising:

A) wherein the node position generating unit is configured to add a random dither component of up to ±1/2 the node separation to substantially identical information items.

Kohonen, however, teaches **"wherein the node position generating unit is configured to add a random dither component of up to ±1/2 the node separation to substantially identical information items"** as "With the newest versions of our programs the whole process of computation of the document map takes about six weeks on a six-processor SGI 02000 computer...The amount of main memory required was about 800 MB" (Page 582, Section C: Formation of the Document Map), "This time includes finding the keywords to label the map, forming the WWW-ages that are used in exploring the map, and indexing the map units for keyword searches" (Page 583, Section C: Formation of the Document Map), and "Given a search description, the matching units are found from the index and the best matches are returned and displayed as circles on the map" (Page 584, Section 2: Keyword Search).

The examiner further notes that the dither component limitation merely requires a value of *up to* ±1/2. Because 0 is within the defined range, than the broadest reasonable interpretation of the aforementioned dither component is that no such

random dither is applied. Thus, **Kohonen's** node generation teaches the
aforementioned.

It would have been obvious to one of ordinary skill in the art at the time the
invention was made to combine the teachings of the cited references because teaching
Kohonen 's would have allowed **Fanning's** and **Weinmann's** to provide a method for
help a client understand the true meaning of individual texts and finding information of
the highest interest, as noted by **Kohonen** (Section: Introduction).

Response to Arguments

11.   Applicant's arguments filed 01/18/2011 and 02/16/2011 have been fully
considered but they are not persuasive.

Applicants argue on page 13 of the arguments filed on 01/18/2011 that **"This
portion of Fanning describes an audio file converter that samples portions of
audio files or converts data into a standard compressed audio file format.
However, neither of these functions can be considered generating "data including
a text-based abstraction of an information item" as now recited in amended claim
1"**. However, the examiner wishes to refer to Columns 3 and 13 of **Fanning** which state
"The file description comprises any of the following: a title of the data file, the size of the
data file, the type of data file, any text associated with the data file, the creator of the
data file, the quality rating of the data file, and the distribution application where the data
file resides" (Column 3, lines 8-12), "The data files are of the type selected from the
group comprising: an audio data file, a text data file, an image data file, a video data file,
a software executable data file, or a data file containing combinations, such as a
multimedia data file" (Column 3, lines 44-47), "In an alternative embodiment shown in
FIG. 9, the distribution application 1100 contains an audio file module 1102, which
includes an audio file player 1106, as well as an audio file converter 1104. The audio file
player 1106 plays files located in the data file repository 1116, while the audio file
converter 1104 generates audio files either by sampling data from a microphone or
tape, or by converting data stored on a CD-ROM or hard disk into a standard
compressed audio file format. Converted audio files are placed in the repository 1116,
allowing other users in the community to access these new audio files. In addition, the

distribution application 1100 may also contain a video file module 1108, which includes a video file player 1111, as well as a video file converter 1110. Much as in the audio example above, video images (either still, or full motion) are converted from external sources to compressed standard formats and are placed in the repository 1116. Likewise, video files in the repository 1116 are displayed to the user by the video file player 1111" (Column 13, lines 6-24). The examiner further wishes to state that **Fanning** explicitly states that all stored files that can be downloaded include text portions (See "any text associated with the data file"). Moreover, **Fanning** states that downloadable items can include multimedia files that can comprise multiple types of combinations of files. In addition, it is well known in the art that downloaded audio/video files include text elements.

Applicants argue on page 15 of the arguments filed on 01/18/2011 that **"It is respectfully submitted that neither of these functions can be considered generating "data including a feature-based abstraction of an information item"**. However, the examiner wishes to refer to Columns 3 and 13 of **Fanning** which state "The file description comprises any of the following: a title of the data file, the size of the data file, the type of data file, any text associated with the data file, the creator of the data file, the quality rating of the data file, and the distribution application where the data file resides" (Column 3, lines 8-12), "The data files are of the type selected from the group comprising: an audio data file, a text data file, an image data file, a video data file, a software executable data file, or a data file containing combinations, such as a multimedia data file" (Column 3, lines 44-47), "In an alternative embodiment shown in FIG. 9, the distribution application 1100 contains an audio file module 1102, which includes an audio file player 1106, as well as an audio file converter 1104. The audio file player 1106 plays files located in the data file repository 1116, while the audio file converter 1104 generates audio files either by sampling data from a microphone or tape, or by converting data stored on a CD-ROM or hard disk into a standard compressed audio file format. Converted audio files are placed in the repository 1116, allowing other users in the community to access these new audio files. In addition, the distribution application 1100 may also contain a video file module 1108, which includes

a video file player 1111, as well as a video file converter 1110. Much as in the audio example above, video images (either still, or full motion) are converted from external sources to compressed standard formats and are placed in the repository 1116. Likewise, video files in the repository 1116 are displayed to the user by the video file player 1111" (Column 13, lines 6-24). The examiner further wishes to state that the instant specification defines features as merely "Feature extraction is the process of transforming raw data into an abstract representation" (Page 6, lines 11-12). The examiner further wishes to state that **Fanning** clearly transforms its raw data into an abstract representation via its compression of downloaded items.

Applicants argue on pages 12-13 of the arguments filed on 02/16/2011 that **"Kohonen does not appear to describe or suggest adding any random component to any document location, much less a random dither component as claimed"**. However, the examiner wishes to refer to pages 582 and 584 of **Kohonen** which state "With the newest versions of our programs the whole process of computation of the document map takes about six weeks on a six-processor SGI 02000 computer...The amount of main memory required was about 800 MB" (Page 582, Section C: Formation of the Document Map), "This time includes finding the keywords to label the map, forming the WWW-ages that are used in exploring the map, and indexing the map units for keyword searches" (Page 583, Section C: Formation of the Document Map), and "Given a search description, the matching units are found from the index and the best matches are returned and displayed as circles on the map" (Page 584, Section 2: Keyword Search). The examiner further notes that the dither component limitation merely requires a value of _up to_ ±1/2. Because 0 is within the defined range, than the broadest reasonable interpretation of the aforementioned dither component is that no such random dither is applied. Thus, **Kohonen's** node generation teaches the aforementioned.

Conclusion

12.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 6,636,862 issued to **Lundahl et al.** on 21 October 2003. The subject matter disclosed therein is pertinent to that of claims 1-23, and 27-32 (e.g., methods to use SOM mapping).

U.S. PGPUB 2003/0208485 issued to **Castellanos** on 06 November 2003. The subject matter disclosed therein is pertinent to that of claims 1-23, and 27-32 (e.g., methods to use SOM mapping).

U.S. Patent 7,017,186 issued to **Day** on 21 March 2006. The subject matter disclosed therein is pertinent to that of claims 1-23, and 27-32 (e.g., methods to use SOM mapping).

U.S. Patent 7,440,994 issued to **Harrow et al.** on 21 October 2008. The subject matter disclosed therein is pertinent to that of claims 1-23, and 27-32 (e.g., methods to use SOM mapping).

U.S. PGPUB 2002/0194256 issued to **Needham et al.** on 06 November 2003. The subject matter disclosed therein is pertinent to that of claims 1-23, and 27-32 (e.g., methods to use SOM mapping).

U.S. PGPUB 2002/0166001 issued to **Cheng et al.** on 07 November 2002. The subject matter disclosed therein is pertinent to that of claims 1-23, and 27-32 (e.g., methods to use SOM mapping).

Article entitled "Interfaces for Palmtop Image Search" by **Dertick**, dated July 2002. The subject matter disclosed therein is pertinent to that of claims 1-23, and 27-32 (e.g., methods to use SOM mapping).

13.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

14.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mahesh Dwivedi whose telephone number is (571) 272-2731. The examiner can normally be reached on Monday to Friday 8:20 am – 4:40 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Vo can be reached (571) 272-3642. The fax number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

<div style="text-align: right">

Mahesh Dwivedi

Primary Examiner

Art Unit 2168

</div>

April 15, 2011

/MAHESH DWIVEDI/

Primary Examiner, Art Unit 2168